



ENSAFE INC.

935 Houston Northcutt Blvd., Suite 113 • Mt. Pleasant, SC 92464 • Telephone 843-884-0029 • Facsimile 843-856-0107 • www.ensafe.com

November 16, 1998

Paul Bergstrand
Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste
8901 Farrow Road
Columbia, South Carolina 29203

RE: Submittal of Monitoring Well Construction and Development Logs at Zone H, Naval Base Charleston, Charleston, SC.

Dear Mr. Bergstrand:

On behalf of the Southern Division Naval Facility Engineering Command, EnSafe Inc., is submitting copies of the well construction and development logs for four (4) shallow monitoring wells installed at SWMU 9 in Zone H. These monitoring wells were installed in the marsh near monitoring well NBCH009007 and in accordance with the monitoring well permit approval number HW-98-050.

Also included is a final copy of the boring log from the Zone I shallow well NBCI680003. This log serves as a replacement for the previous NBCI680003 boring log submitted to SCDHEC on June 18, 1988 as part of well permit approval number HW-98-012. At the date of the previous submittal, survey data had not yet been generated for NBCI680003.

Please do not hesitate to call if you have any questions, or if we can be of further assistance.

Sincerely, EnSafe Inc.

By: Todd K. Kafka

Hydrogeologist

Enclosures

cc: Billy Drawdy, Caretakers Site Office

Tony Hunt, SOUTHDIV

Project file 2908-08014 (CMS Field Work)



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Sincerely, EnSafe, Inc.

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Todd K Wife

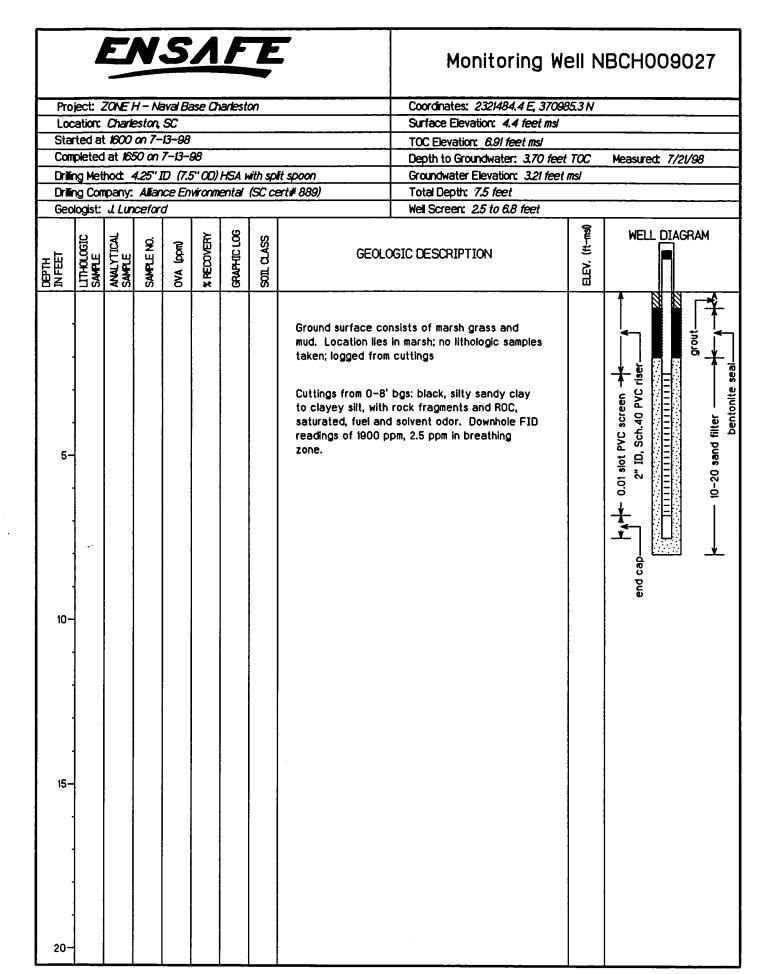
Enclosures

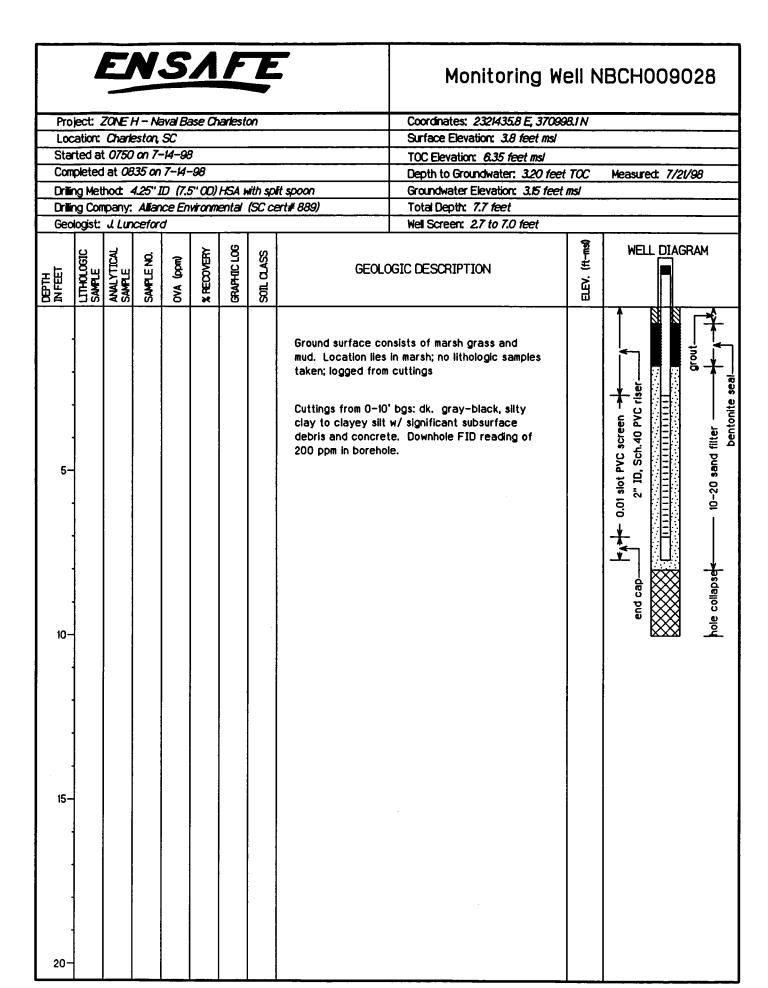
cc: Henry R. Sheppard II, P.E., Caretakers Site Office

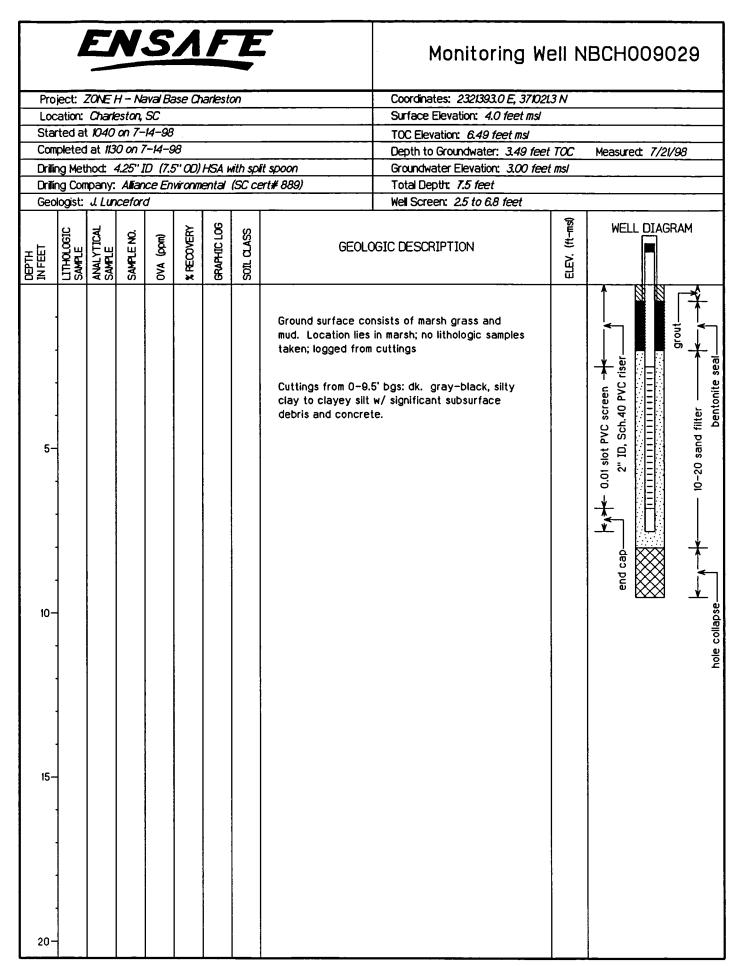
Tony Hunt, SOUTHDIV

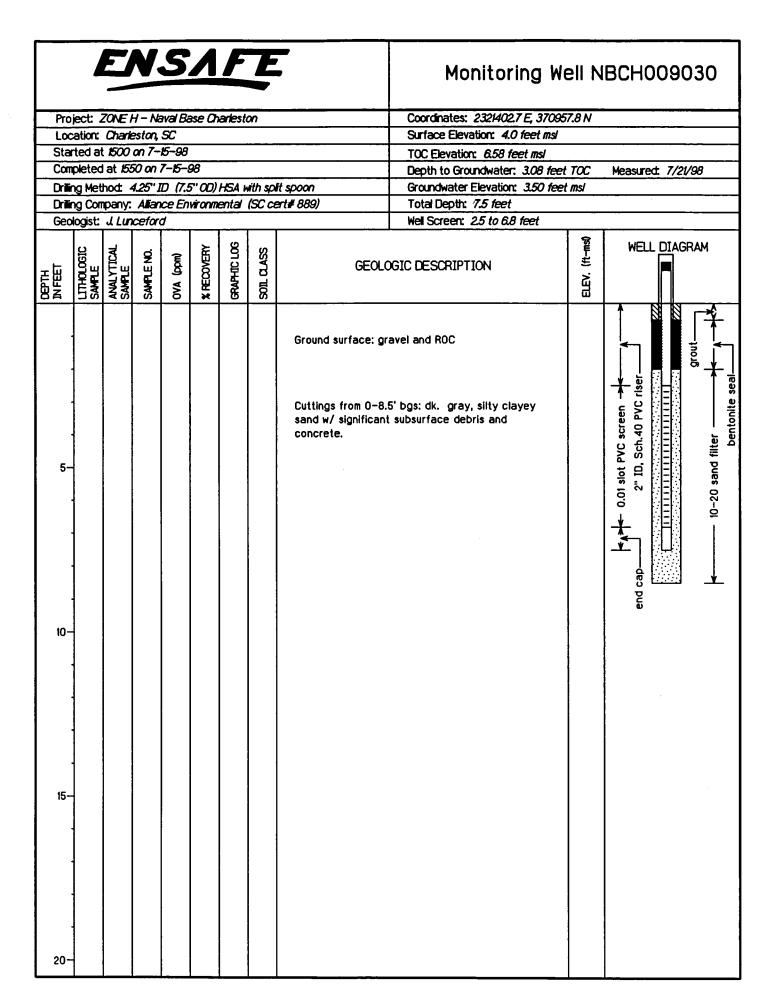
Project file 2908-08014 (CMS Field Work)

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NAVAL BASE CHARLESTON WELL DEVELOPMENT STATUS REPORT ZONE H

WELL DEVELOPMENT SUMMARY

Well:NBCH\009027

Summary Log of well development progress. Readings are final readings for each visit. Volume data are cumulative from start of development.

DATE	Time	VOLUME Gallons	рĦ	Cond mS/cm	Turb NTU	Temp Celsius	Sal %
07-17-98	1240	10	6.72	13.6	999	29.6	0.78
	1243	15	6.69	13.7	344	27.8	0.79
	1255	18	6.68	14.1	168	27.3	0.81
	1345	60	6.67	13.7	123	26.4	0.79
	1400	75	6.65	13.7	83	26.8	0.79
	1425	110	6.68	13.8	30	25.9	0.80
						**.*	

Well Development Completed on: 07-17-98

COMMENTS: All data recorded in CMS Well Development Log Book, page 24.

NAVAL BASE CHARLESTON WELL DEVELOPMENT STATUS REPORT ZONE H

WELL DEVELOPMENT SUMMARY

Well:NBCH\009028

Summary Log of well development progress. Readings are final readings for each visit. Volume data are cumulative from start of development.

DATE	Time	VOLUME Gallons	рĦ	Cond mS/cm	Turb NTU	Temp Celsius	Sal %
07-17-98	1540	27	6.75	14.7	66	27.2	0.86
	1559	45	6.63	15.0	10	25.9	0.87
	1603	50	6.80	15.1	10	25.9	0.88

Well Development Completed on: 07-17-98

COMMENTS: All data recorded in CMS Well Development Log Book, page 25.

NAVAL BASE CHARLESTON WELL DEVELOPMENT STATUS REPORT ZONE H

WELL DEVELOPMENT SUMMARY

Well:NBCH\009029

Summary Log of well development progress. Readings are final readings for each visit. Volume data are cumulative from start of development.

DATE	Time	VOLUME Gallons	рH	Cond mS/cm	Turb NTU	Temp Celsius	Sal %
07-17-98	1545	55	6.86	16.0	112	25.4	0.94
	1605	110	6.97	16.4	10	25.2	0.96
	1607	112	6.94	16.6	0	25.5	0.98
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Well Development Completed on: 07-17-98

COMMENTS: All data recorded in CMS Well Development Log Book, page 26.

NAVAL BASE CHARLESTON WELL DEVELOPMENT STATUS REPORT ZONE H

WELL DEVELOPMENT SUMMARY

Well:NBCH\009030

Summary Log of well development progress. Readings are final readings for each visit. Volume data are cumulative from start of development.

DATE	Time	VOLUME Gallons	рН	Cond mS/cm	Turb NTU	Temp Celsius	Sal %
07-17-98	1230	35	6.47	11.8	322	28.8	0.67
	1235	40	6.49	11.9	142	28.8	0.68
	1245	55	6.47	12.2	188	28.8	069
	1256	65	6.46	12.3	69	28.7	0.70
	1330	90	6.44	11.6	351	28.6	0.66
	1345	120	6.42	11.7	120	28.6	0.66
	1355	135	6.37	11.3	63	28.8	0.64
	1414	165	6.38	11.5	45	28.7	0.65
	1437	190	6.38	11.3	24	28.7	0.64

Well Development Completed on: 07-17-98

COMMENTS: All data recorded in CMS Well Development Log Book, page 23.



Monitoring Well NBCI680003

		Monitoring W	CII I	IDC1000003			
Project: ZONE I - Nava	al Base Charleston	Coordinates: 2326520.20 E, 370	Coordinates: 2326520.20 E, 370948.37 N				
Location: Charleston, SC		Surface Elevation: 9.6 feet ms/	Surface Elevation: Q.6 feet msl				
Started at 1640 on 3-16		TOC Elevation: 9.32 feet msl	TOC Elevation: 9.32 feet msl				
Completed at 1800 on 3-	-16-98		Depth to Groundwater: 4.35 feet TOC Measured: 3/24/98				
	(7.5" OD) HSA with split spoor	Groundwater Elevation: 4.97 fee	t msi				
	e Environmental (SC Cert #100						
Geologist: T. Kafka		Well Screen: 25 to 120 feet		T			
DEPTH IN FEET LITHOLOGIC SAMPLE ANALYTICAL SAMPLE SAMPLE SAMPLE	OVA (ppm) ** RECOVERY GRAPHIC LOG SOIL CLASS	GEOLOGIC DESCRIPTION	ELEV. (ft-ms)	WELL DIAGRAM			
5-1122	O 70 FILL Fill: Sitt to CL to Sitt sat SM sat SM sat SM pho	rocks and sandy gravel. olive-brown; clayey; trace-some very fine ne sand; firm. olive-brown; dark black, very fine to 'fine, sphatic sand present as lenses; shell hash PO4 nodules; moist to wet. as above w/ dark black silty laminae; sticky; rated. : medium gray; silty; trace very fine to fine d; soft; low to medium plasticity; moist. olive-brown; very fine to fine, black, sphatic sand as lenses throughout; firm; wet; .8-11.9', coarse to very coarse shell hash.	5.9 5.6 4.5 3.6 2.4 16 11	end cap			
20-							